

REMARKS

The last Office Action has been carefully considered.

Claims 1-3 and 12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Proise (U.S. Pat. No. 5,274,904) in view of Dutton (U.S. Pat. No. 3,467,931).

Claims 4-11 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Proise in view of Dutton and further in view of Fanning et al. (U.S. Pat. No. 5,530,308).

Claims 1- 14 are pending in the application, with Claim 1 being the sole independent claim.

Claim 1 is amended. No new subject matter is presented.

Regarding the rejection of Claim 1 under 35 U.S.C. § 103(a), the Examiner states that Proise in view of Dutton renders the claim obvious. Proise broadly discloses a magnetic pole 10 for magnetic levitation vehicles (Abstract; FIG. 1), comprising a core having a center axis (FIG. 5b); and a winding 12 applied on said core (FIG. 1), characterized in that said winding 12 has two disks (FIG. 5c), said disks being formed of conductor strip sections coiled in several layers coaxially around the center axis onto said core and having a plurality of layers in a radial direction of the center axis (col. 4 lines 45-64; FIG. 5b).

Dutton discloses a magnetic pole for an electric transformer (Abstract), comprising a core 10 having a center axis (Fig. 1); and a winding applied on said core 10, characterized in that said winding has two disks 11,12 adjacent to each other in the direction of the center axis (Fig. 1), said disks being formed of conductor strip sections coiled in several layers coaxially around the center axis onto said core 10 and having a plurality of layers in a radial direction of the center axis (col. 2 lines 55-73, col. 3 lines 1-30; Fig. 1).

However, both Proise and Dutton fail to disclose at least the following limitations specified in Amended Claim 1.

First, Proise gives no hints of coiling conductor strip sections in opposite winding senses. Dutton discloses nowhere in the above-referenced sections and figure (col. 2 lines 55-73, col. 3 lines 1-30; Fig. 1) nor anywhere else opposite winding senses for conductor strip sections as alleged in the Office Action (page 2, the last four lines). Dutton indeed gives hints to winding all the disks in a same winding sense (col. 3 lines 7-25).

By contrast, the winding 10 of the present application has two disks 11 and 12 adjacent to each other in the direction of the center axis 5 (specification page 4 lines 12-14; Fig. 2); and the disks 11, 12 have the conductor strip sections being coiled in opposite winding senses (specification page 2 lines 17-19, page 4 lines 29-30, page 6 lines 12-14, page 7 lines 19-26; Figs. 2 and 7).

Proise and Dutton, separately or in combination, fail to disclose the limitation of *the conductor strip section (21a, 29) coiled in a first winding sense, the conductor strip section (21b, 30) coiled in a second winding sense being opposite the first winding sense* taught by Amended Claim 1.

Second, Proise hints nowhere a connection section conductively connecting two inside layers near the core and belonging to two adjacent disks. Dutton explicitly teaches a connection section (crossover connector) 18 conductively connecting the outermost layer of disk 11 to the innermost layer of disk 12 adjacent to disk 11; and connection sections 19, 20, 21, and 22 similarly connecting the two adjacent disks 12-13, 13-14, 14-15, and 15-16, respectively (col. 3 lines 10-30; Fig. 1). It is further noted that, in Dutton, each of the crossover connectors 18-22 is required to run in the axial cooling gap between two adjacent disks, and thus takes up space in the cooling gap and may interfere with cooling ducts deployed in the gap (Fig. 1).

By contrast, each of the disks 11 and 12 of the present application has an inside layer near the core 1 and the two inside layers are conductively connected by a connection section 21c, 31, 17 (specification page 4 lines 30-31, page 5 lines 4-10, page 6 lines 28-32; Figs. 2-7).

Proise and Dutton, separately or in combination, further fail to disclose the limitation of *each disc (11, 12) having an inside layer being near the core (1), the*

*two inside layers of the two disks (11, 12) being conductively connected by a connection section (21c, 31, 17) taught by Amended Claim 1.*

Third, each of the disks 11 and 12 of the present application also has an outside layer radially farthest from the core 1 and each of the two outside layers is connected to one of electrical connections 18 and 19 (specification page 4 lines 30-34; Figs. 2 and 7). None of Proise and Dutton has equivalent.

Proise and Dutton, separately or in combination, further fail to disclose the limitation of *each disc (11, 12) having an outside layer being radially farthest from the core (1), the two outside layers provided each with an electrical connection (18, 19) taught by Amended Claim 1.*

Fourth, the connection section 21c, 31 of the present application not only conductively connects two inside layers, but also determines the winding senses for the two conductor strip sections 21a, 21b, 29, 30 and the axial distance *a* between the two disks 11 and 12 (specification page 5 lines 13-16; Figs 2-7).

Proise and Dutton, separately or in combination, further fail to disclose the limitation of *the connection section (21c, 31) determining the winding senses of the two conductor strip sections (21a, 21b, 29, 30) and an axial distance (a) between the two disks (11, 12) taught by Amended Claim 1.*

Clearly, Amended Claim 1 structurally differs from Proise, Dutton, or the combination thereof.

In view of the preceding amendments and remarks, it is respectfully submitted that all of the pending claims, namely, Claims 1-12, are in condition for allowance.

Should the Examiner require or consider it advisable that the specification, claims and/or drawings be further amended or corrected in formal respects in order to place this case in condition for final allowance, then it is respectfully requested that such amendments or corrections be carried out by Examiner's Amendment, and the case be passed to issue. Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing this case to allowance; he is invited to telephone the undersigned (at 631-549-4700).

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'M. J. Striker', with a long horizontal flourish extending to the right.

Michael J. Striker

Attorney for Applicant

Reg. No. 27233